

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: B Quarter Circle Ranch Inc. c/o Clarence Brown, 3144 RD 555, Miles City, MT 59301
2. Type of action: Application for Beneficial Water Use Permit
3. Water source name: Powder River
4. Location affected by project: Section 17, T1N, R54E, Custer County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The applicant proposes to divert water from the Powder River, by means of a pump, from April 1 to November 1 at 1170 GPM (2.61 CFS) up to 441.0 AF, from a point in the NESESW Section 17, T1N, R54E, Custer County, for irrigation use from April 1 to November 1. The Applicant proposes to irrigate 147 AC. The place of use is generally located in the S2NE, N2SE, NWSESE, NESWSE, E2NESW, E2SESW Section 17, T1N, R54E, Custer County, approximately 32 miles northeast of Broadus and 24 miles west of Ekalaka. The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.
6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Fish, Wildlife and Parks
Montana Department of Environmental Quality
Montana Natural Heritage Program
Montana Sage Grouse Habitat Conservation Program
Montana Department of Natural Resources and Conservation
United States Fish and Wildlife Service
United States Natural Resources Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - The Powder River is identified as chronically dewatered by the Montana Department of Fish, Wildlife and Parks from the state line to the confluence with the Yellowstone River. The proposed use will not worsen the dewatered condition because the Department of Fish, Wildlife and Parks holds an instream flow reservation on the Powder River that is senior in priority date to the proposed use and can make call on the proposed use in cases of dewatering. Gages on the Powder River indicate that water in excess of legal demands, including the instream flow reservation, is available.

Determination: Possible impact

Water quality – The Powder River is not threatened with respect to beneficial uses according to the Montana Department of Environmental Quality. The river does not fully support agriculture due to elevated natural salinity levels. High efficiency center pivot sprinkler systems like the proposed project reduce the likelihood that return flows would degrade water quality. Use of Powder River water for irrigation has limited potential to degrade water quality.

Determination: No significant impact

Groundwater – Irrigation may increase the availability of groundwater in the local area. The irrigation system may allow fertilizer to leach into the groundwater or increase salinity due to high natural salinity of the river water. However, efficient center pivot sprinkler systems limit the potential for infiltration.

Determination: No significant impact

DIVERSION WORKS - The proposed diversion is a pump in the Powder River at a location that currently supports a pump. The proposed pipeline would be buried. The proposed location of the pump and pipeline do not cross any riparian areas. The system as proposed will not impact channel characteristics, flow patterns or riparian areas and will create no barriers.

Determination: No impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – The Montana Natural Heritage Program lists no plant species of concern in the project area and 7 animal species of concern. The animal species of concern are the Black-tailed Prairie Dog, Merriam's Shrew, Snapping Turtle, and four fish species. No barriers will be created by the proposed project and no change in habitat is foreseen. The project area lies within general Sage Grouse habitat as mapped by the Montana Sage Grouse Habitat Conservation Program. The proposed project is consistent with the Montana Sage Grouse Conservation Strategy according to a letter from Caroline Sime to the Applicant on June 20, 2017.

Determination: No impact

Wetlands - There are no wetlands in the area of the project and no wetlands are proposed.

Determination: No impact

Ponds – There are no ponds in the area of the project and no ponds are proposed.

Determination: No impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The dominant soil type in the area is Glendive fine sandy loam with low slopes. This is a well-drained, non-saline to slightly saline soil. The proposed irrigation will not create soil instability. There is the potential that use of saline Powder River water could degrade the soil quality or lead to saline seep.

Determination: Possible impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – Existing vegetative cover is pasture grass and the area is entirely in agricultural production. No change to the type of vegetative cover is proposed. The construction of a center pivot on the site and burying the pipe could allow the establishment of noxious weeds. It will be the responsibility of the landowner to monitor and control noxious weeds.

Determination: No significant impact

AIR QUALITY – Irrigation of agricultural land has no potential to impact air quality.

Determination: No impact

HISTORICAL AND ARCHEOLOGICAL SITES – The proposed project is not located on State or Federal land.

Determination: Not applicable.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – No demands on environmental resources not addressed above are recognized.

Determination: No impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – There are no known environmental plans or goals in the project area.

Determination: No impact

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – There are no public roads through the project area and no nearby recreational or wilderness sites. The proposed project would not impact fishing access to the Powder River

Determination: No impact

HUMAN HEALTH – Irrigation of agricultural land has no potential to adversely affect human health.

Determination: No impact

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No__X_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: Not applicable

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? No significant impact
- (b) Local and state tax base and tax revenues? No significant impact
- (c) Existing land uses? No significant impact
- (d) Quantity and distribution of employment? No significant impact
- (e) Distribution and density of population and housing? No significant impact
- (f) Demands for government services? No significant impact
- (g) Industrial and commercial activity? No significant impact
- (h) Utilities? No significant impact
- (i) Transportation? No significant impact
- (j) Safety? No significant impact
- (k) Other appropriate social and economic circumstances? No significant impact

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts from the proposed project are recognized.

Cumulative Impacts: There are several recent permits and changes from flood to pivot irrigation along the Powder River. The effect on the river may be to increase late summer flows and decrease winter flows. The environmental impact of such changes in flow characteristics of the river are not known.

3. ***Describe any mitigation/stipulation measures:*** None
4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The only reasonable alternative to the proposed project is the no-action alternative which would prevent the landowner from increasing the value of his land, agricultural production and the State of Montana tax base.

PART III. Conclusion

1. ***Preferred Alternative:*** The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

2. ***Comments and Responses:*** None

3. ***Finding:***
*Yes*___ *No* *X* *Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: Although there are some possible environmental impacts recognized, specifically the potential soil quality degradation from highly saline Powder River water and the chronic dewatering concern, an EA is the appropriate level of analysis because the Department of Natural Resources and Conservation is required to meet statutory timelines (MCA 35-2-307) in the processing of water right applications. Those timelines preclude the preparation of an Environmental Impact Statement.

Name of person(s) responsible for preparation of EA:

Name: Mark Elison

Title: Deputy Regional Manager

Date: 8/30/2017